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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,787	06/13/2006	Masato Kaneda	Q79148	5976

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EXAMINER	
EOFF, ANCA	

ART UNIT	PAPER NUMBER
1795	

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02/12/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/582,787	KANEDA ET AL.	
	Examiner	Art Unit	
	ANCA EOFF	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3,6 and 12-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3,6 and 12-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *02/03/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 3, 6 and 12-16 are pending. Claims 1-2, 4-5 and 7-11 are canceled.

2. The foreign priority document JP 2003-418112, filed in Japan on December 16, 2003 was received and acknowledged. However, in order to benefit of the earlier filing date, a certified English translation is required.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 03, 2009 has been entered.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 comprises the limitation “acrylic-type photosensitive composition” so it is not clear what is the applicant regarding as his invention.

The addition of the word "type" to an otherwise definite expression (e.g., Friedel-Crafts catalyst) extends the scope of the expression so as to render it indefinite. *Ex parte Copenhaver*, 109 USPQ 118 (Bd. App. 1955) (MPEP 2173.05(b)- Relative Terminology)

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 3, 12 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Takagi et al. (US Patent 5,521,054).

With regard to claim 3, Takagi et al. disclose a developing solution consisting of:

- 20% by mass of Swazol 1500;

- 80% by mass of a mixture of benzyl alcohol and isobutyl isobutyrate (column 7, lines 61-62).

Takagi et al. further disclose that Swazol 1500 is a solvent based on tri- and tetramethylbenzene (column 5, lines 65-67) so it meets the limitations of the instant application for a C_9,C_{10}-based aromatic hydrocarbon solvent.

Benzyl alcohol and isobutyl isobutyrate are equivalent to the solvents other than an aprotic polar solvent of the instant application.

The fact that the remover of the instant application is used as "a photosensitive composition remover used for removal of an uncured photosensitive composition" and "wherein the photosensitive composition remover is used for removal of a

photosensitive composition containing a pigment" are merely intended uses and add no patentable weight to the claim. Therefore, the developing solution of Takagi et al. fully anticipates the remover of the instant application.

Claim 12 contains only limitations regarding the intended use of the remover composition of claim 3 and such limitations do not add any patentable weight to the claim. Therefore, the developing solution of Takagi et al. meets the limitations of the claim.

With regard to claim 14, Swazol 1500, benzyl alcohol and isobutyl isobutyrate are solvents.

With regard to claim 15, benzyl alcohol is an alcohol and isobutyl isobutyrate is a carboxylic acid ester so they meet the limitation of the claim.

8. Claims 3, 12 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kasari et al. (US Patent 5,330,796) and as evidenced by Takagi et al. (US Patent 5,578,420).

With regard to claim 3, Kasari et al. disclose a solvent mixture consisting of 20 parts by weight of Swazol 1000 and 80 parts by weight of ethyl acetate (column 16, lines 3-4).

Swazol 1000 is a solvent based on tri- and tetramethylbenzene, as evidenced by Takagi et al. in column 4, line 66. Therefore, it meets the limitations of the instant application for a C_9,C_{10}-based aromatic hydrocarbon solvent.

Ethyl acetate is equivalent to a solvent other than aprotic polar solvents of the instant application.

The fact that the solvent mixture of the instant application is used as "a photosensitive composition remover used for removal of an uncured photosensitive composition" and “wherein the photosensitive composition remover is used for removal of a photosensitive composition containing a pigment” are merely intended uses and add no patentable weight to the claim. Therefore, the solvent mixture of Kasari et al. fully anticipates the remover of the instant application.

Claim 12 contains only limitations regarding the intended use of the remover composition of claim 3 and such limitations do not add any patentable weight to the claim. Therefore, the solvent mixture of Kasari et al. meets the limitations of the claim.

With regard to claim 14, Swazol 1000 and ethyl acetate are solvents.

With regard to claim 15, ethyl acetate is a carboxylic acid ester so it meets the limitation of the claim.

9. Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Phillips et al. (US Patent 5,198,482) and as evidenced by Takagi et al. (US Patent 5,578,420).

Phillips et al. disclose a solvent mixture consisting of 12.2 % by mass of Solvesso 100 and 87.8 % by mass of a mixture of propylene glycol monomethyl ether and isopropanol (See Table in column 12, lines 10-15).

Swazol 1000 is a solvent based on tri- and tetramethylbenzene, as evidenced by Takagi et al. in column 4, line 66 so it meets the limitations of the instant application for a C_9,C_{10}-based aromatic hydrocarbon solvent.

Propylene glycol monomethyl ether and isopropanol are equivalent to the solvents other than aprotic polar solvents of the instant application.

The fact that the solvent mixture of the instant application is used as "a photosensitive composition remover used for removal of an uncured photosensitive composition" and “wherein the photosensitive composition remover is used for removal of a photosensitive composition containing a pigment” are merely intended uses and add no patentable weight to the claim. Therefore, the solvent mixture of Phillips et al. fully anticipates the remover of the instant application.

10. Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Van den Berg et al. (US Pg-Pub 2002/0123600) and as evidenced by Takagi et al. (US Patent 5,578,420).

With regard to claim 13, Van den Berg et al. disclose a solvent mix comprising 25% by mass of Solvesso 100, 25% by mass of butyl acetate, and 50 % by mass of EEP (ethoxyethyl propionate) (see table 1 in par.0064, wherein EEP is defined in par.0049).

Solvesso 100 is a solvent comprising aromatic hydrocarbons with 9 or more carbon atoms, as evidenced by Takagi et al. in column 4, lines 53-56.

The fact that the solvent mixture of the instant application is used as "a photosensitive composition remover used for removal of an uncured photosensitive composition" is merely an intended use and adds no patentable weight to the claim. Therefore, the solvent mixture of Van den Berg et al. fully anticipates the remover of the instant application.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyanagi et al. (WO 03/072634, wherein the citations are from the English equivalent document US Pg-Pub 2005/0153530) in view of Wyatt et al. (US Pg-Pub 2003/0118946).

With regard to claims 3 and 16, Koyanagi et al. disclose that a developer for a photosensitive composition may be a solvent, such as cyclohexanone, tetramethylbenzene, propylene glycol monomethyl ether acetate (par.0123) but fail to disclose that such solvents may be used in combination/mixture as developer.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to use more than one solvent for the developer of Koyanagi et al., for the same purpose.

"It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) (MPEP 2144.06.I—Combining Equivalents Known For the Same Purpose).

Koyanagi et al. fail to disclose the amount of tetramethylbenzene in a developer.

Wyatt et al. disclose printing plate developing solvent compositions, wherein such composition comprises mixtures of solvents including aromatic hydrocarbons (see table 1, par.0062).

Wyatt et al. disclose mixtures of solvents comprising 20% by mass of aromatic hydrocarbons (see Example 4 in table 1, par.0062).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use tetramethylbenzene in an amount of 20% by mass in a solvent mixture used as developer for the photosensitive resin of Koyanagi et al., as taught by Wyatt et al., with a reasonable expectation of success.

In such a mixture, tetramethylbenzene is equivalent to C_{10}-based aromatic hydrocarbon of the instant application.

Cyclohexanone and propylene glycol monomethyl ether acetate are equivalent to the solvents other than an aprotic polar solvent of the instant application.

The solvent mixture of Koyanagi modified by Wyatt which is used as developer for a photosensitive composition is equivalent to the photosensitive composition remover of the instant application.

13. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips et al. (US Patent 5,198,482).

Phillips et al. disclose the solvent mixture of claim 1 (see paragraph 9 above), wherein the solvent mixture consists of 12.2 % by mass of Solvesso 100, 61.4 % by mass of propylene glycol monomethyl ether and 26.3% by mass of isopropanol (See Table in column 12, lines 10-15).

Phillips et al. fail to disclose a solvent mixture comprising propylene glycol monomethyl ether in an amount of 30-60% by mass, as required by the instant application. Phillips' teaches that propylene glycol monomethyl ether may be comprised in the mix in an amount of 61% by mass. The range of Phillips is very close to the claimed upper range. The use of the amounts in Phillips would be expected to yield the same result, absent any evidence to the contrary.

Therefore, one of ordinary skill in the art at the time of the invention would have been motivated to obtain a solvent mixture with 30-60% by mass of propylene glycol monomethyl ether, based on the use of 61% propylene glycol monomethyl ether as disclosed by Phillips.

(A) prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (Court held as proper a rejection of a claim directed to an alloy of "having 0.8% nickel, 0.3% molybdenum, up to 0.1% iron, balance titanium" as obvious over a reference disclosing alloys of 0.75% nickel, 0.25% molybdenum, balance titanium and 0.94% nickel, 0.31% molybdenum, balance titanium.) (MPEP 2144.05- I. Overlap of Ranges).

Response to Arguments

14. Applicant's arguments with respect to the amended claims 3, 6 and 12-16, see the Remarks filed on February 03, 2009. have been considered but are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANCA EOFF whose telephone number is (571)272-9810. The examiner can normally be reached on Monday-Friday, 6:30 AM-4:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. E./
Examiner, Art Unit 1795

/Cynthia H Kelly/
Supervisory Patent Examiner, Art Unit 1795